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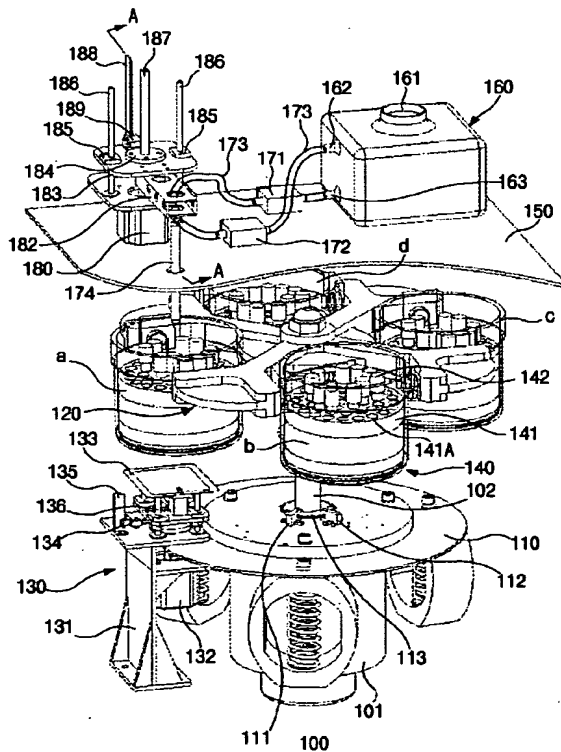
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(54) Title: **AUTOMATIC BALANCING CENTRIFUGAL APPARATUS BY FLUID COMPENSATION**



(57) Abstract: The invention relates to an automatic balancing centrifugal apparatus by fluid compensation, which compensates a load imbalance among buckets holding samples by injecting a fluid into the buckets or sucking the fluid from the buckets, thereby simplifying the overall structure of the centrifugal apparatus, increasing the durability, and centrifuging a large quantity of samples under various high-speed rotation conditions smoothly. The automatic balancing centrifugal apparatus by fluid compensation comprises: rotors on which a plurality of buckets are mounted; a centrifuge motor for rotating said rotors; a load measurement mechanism, which is installed so as to lift and lower along the rotation trace of said buckets and which measures the load of said buckets while the restraint of the buckets is being released at the time of lifting; a position sensing mechanism for sensing whether or not each of said buckets is positioned right above said load measurement mechanism; a fluid compensation mechanism for injecting a fluid into said buckets or for sucking the fluid from the buckets; and a main control part for controlling the overall operations of each of said elements and for controlling said fluid compensation mechanism so that the loads of said buckets can become equal to each other.

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